Journal of Crystal Growth 113 (1991) 727–731
North-Holland

Author index

Abernathy, C.R., S.J. Pearton, F. Ren and J. Song, Sn doping of GaAs and AlGaAs by MOMBE using tetraethyltin 113 (1991) 412
Alcobé, X., see Ferrater 113 (1991) 181
Alexander, J.I.D., S. Amiroudine, J. Ouazzani and F. Rosenberger, Analysis of the low gravity tolerance of Bridgman–Stockbarger crystal growth. II. Transient and periodic accelerations 113 (1991) 21
Amiroudine, S., see Alexander 113 (1991) 21
Andonov, P., see Chibani 113 (1991) 681
Antar, B.N., Convective instabilities in the melt for solidifying mercury cadmium telluride 113 (1991) 92
Armour, E.A., see Sun 113 (1991) 103
Ashida, M., see Ueda 113 (1991) 69
Atherton, L.J., see De Yoreo 113 (1991) 691
Ayers, J.E., S.K. Ghandhi and L.J. Schowalter, Crystallographic tilting of heteroepitaxial layers 113 (1991) 430

Bachmann, K.J., see Xing 113 (1991) 113
Badia, F., see Ferrater 113 (1991) 181
Balyakina, I.V., see Kulakov 113 (1991) 653
Banan, M., R.T. Gray and W.R. Wilcox, An experimental approach to determine the heat transfer coefficient in directional solidification furnaces 113 (1991) 557
Basavalingu, B. and J.A.K. Tareen, Hydrothermal phase relations in V_2O_5–H_2O system 113 (1991) 659
Bauer, G., see Springholz 113 (1991) 593
Bernardi, S., C. Bocchi, C. Ferrari, P. Franzosi and L. Lazzarini, Structural characterization of $Hg_{0.78}Cd_{0.22}Te/CdTe$ LPE heterostructures grown from Te solutions 113 (1991) 53
Bhat, H.L., see Dhanaraj 113 (1991) 456
Bird, C.D., see Bordui 113 (1991) 61
Biswas, D. and H. Morkoç, A safety system for gas source molecular beam epitaxy 113 (1991) 209
Bocchi, C., see Bernardi 113 (1991) 53
Bocchi, C., C. Ferrari, P. Franzosi, M. Scaffardi, P. Diaz, J.G. Rodriguez and T.A. Prutskij, Investigation of LPE $Ga_{1-x}Al_xAs$/GaAs laser structures by double crystal diffractometry 113 (1991) 540
Bocelli, C., G. Calestani, O. de Melo, F. Leccabue, C. Pelosi and B.E. Watts, Crystallographic properties of some ternary and multinary Te-based semiconductors 113 (1991) 663
Bordui, P.F., R.G. Norwood, C.D. Bird and G.D. Calvert, Compositional uniformity in growth and poling of large-diameter lithium niobate crystals 113 (1991) 61
Böttner, H., see Springholz 113 (1991) 593
Brantley, S.L., see Voigt 113 (1991) 527
Brinkman, A.W., see Sang 113 (1991) 1
Brown, W.E., see Eidelman 113 (1991) 643
Bryskiewicz, T., see Roth 113 (1991) 379

Caballero, M.A., see González-Mañas 113 (1991) 669
Calestani, G., see Bocelli 113 (1991) 663
Callec, R., see L'Haridon 113 (1991) 39
Calvert, G.D., see Bordui 113 (1991) 61
Camel, D., see Garandet 113 (1991) 587
Cao, D.S., Z.M. Fang and G.B. Stringfellow, Organometallic vapor-phase epitaxial growth of $Al_xGa_{1-x}Sb$ and $Al_xGa_{1-x}As_ySb_{1-y}$ 113 (1991) 441
Carter, C.B., see Norton 113 (1991) 716
Chaudhry, M.I., R.J. McCluskey and R.L. Wright, The role of carrier gases in the epitaxial growth of β-SiC on Si by CVD 113 (1991) 120
Chen, C.H., see Xue 113 (1991) 371
Chen, J.S., Y.L. Wu, C.D. Chiang and T.B. Wu, Growth of $Hg_{1-x}Cd_xTe$ heterolayers by slider LPE using separate compensating atmosphere of mercury 113 (1991) 520
Chiang, C.D., see Chen 113 (1991) 520
Chibani, A., R. Gauthier, P. Pinard and P. Andonov, Etude de la texture des rubans EPR de silicium polycristallin photovoltaïque 113 (1991) 681
Chiu, L.C., see Tran 113 (1991) 16
Christoffersen, J., E. Rostrup and M.R. Christoffersen, Relation between interfacial surface tension of electrolyte crystals in aqueous suspension and their solubility; a simple derivation based on surface nucleation 113 (1991) 599
Christoffersen, M.R., see Christoffersen 113 (1991) 599
Clemens, H., see Springholz 113 (1991) 593
Cody, A.M. and R.D. Cody, Chiral habit modifications of gypsum from epitaxial-

like adsorption of stereospecific growth inhibitors 113 (1991) 508
Cody, R.D., see Cody 113 (1991) 508
Coquillé, R., see L'Haridon 113 (1991) 39
Couderc, J.P., see Langlais 113 (1991) 606
Coulas, D., see Roth 113 (1991) 379

Dabkowska, H., see Xue 113 (1991) 371
Dabkowski, A., see Xue 113 (1991) 371
Dalas, E., The crystallization of ferric phosphate on cellulose 113 (1991) 140
De Melo, O., see Bocelli 113 (1991) 663
De Yoreo, J.J., L.J. Atherton and D.H. Roberts, Elimination of scattering centers from Cr:$LiCaAlF_6$ 113 (1991) 691
Derby, J.J. and Q. Xiao, Some effects of crystal rotation on large-scale Czochralski oxide growth: analysis via a hydrodynamic thermal-capillary model 113 (1991) 575
Dhanaraj, G., T. Shripathi and H.L. Bhat, Growth and defect characterization of L-arginine phosphate monohydrate 113 (1991) 456
Diaz, P., see Bocchi 113 (1991) 540
Duffar, T., see Garandet 113 (1991) 587
Durose, K., see Sang 113 (1991) 1

Ebrahimpour, A., Jingwu Zhang and G.H. Nancollas, Dual constant composition method and its application to studies of phase transformation and crystallization of mixed phases 113 (1991) 83
Eidelman, N., W.E. Brown and J.L. Meyer, Selective inhibition of crystal growth on octacalcium phosphate and nonstoichiometric hydroxyapatite by pyrophosphate at physiological concentration 113 (1991) 643
Exner, H.E., see Feijóo 113 (1991) 449

Fang, Z.M., see Cao 113 (1991) 441
Favennec, P.N., see L'Haridon 113 (1991) 39
Feeney, R.E., W.H. Fink, J. Hallett, K. Harrison, D.T. Osuga, J.P. Vesenka and Y. Yeh, Investigations of the differential affinity of antifreeze glycoprotein for single crystals of ice 113 (1991) 417
Feigelson, R.S., see Wilde 113 (1991) 337
Feijóo, D. and H.E. Exner, Surface curvature distributions of growing dendrite crystals 113 (1991) 449
Ferrari, C., see Bernardi 113 (1991) 53
Ferrari, C., see Bocchi 113 (1991) 540
Ferrater, C., A. Lousa, F. Badia, X. Alcobé and J.L. Morenza, Crystal structure of evaporated yttrium thin films 113 (1991) 181
Fillard, J.P., see L'Haridon 113 (1991) 39
Fink, W.H., see Feeney 113 (1991) 417
Franzosi, P., see Bernardi 113 (1991) 53
Franzosi, P., see Bocchi 113 (1991) 540
Frost, J.E.F., D.A. Ritchie and G.A.C. Jones, The growth of shallow high mobility two-dimensional electron gas structures (E) 113 (1991) 726
Fukuda, T., see Miyazaki 113 (1991) 227
Fukuoka, M., see Ueda 113 (1991) 69

Gall, P., see L'Haridon 113 (1991) 39
Ganeau, M., see L'Haridon 113 (1991) 39
Garandet, J.P., A. Rouzaud, T. Duffar and D. Camel, Comparison between order of magnitude and numerical estimates of the solute boundary layer in an idealized horizontal Bridgman configuration 113 (1991) 587
Gauthier, R., see Chibani 113 (1991) 681
Ghandhi, S.K., see Ayers 113 (1991) 430
Giling, L.J., see Van Enckevort 113 (1991) 295
González-Mañas, M. and M.A. Caballero, Morphogenetical characterization of the Brazil twin appearing in $-X$ and Z' growth sectors of synthetic quartz crystals by X-ray topography 113 (1991) 669
Gospodinov, M., see Sveshtarov 113 (1991) 186
Gray, R.T., see Banan 113 (1991) 557
Greedan, J.E., see Xue 113 (1991) 371

Hagihara, S., see Miyazaki 113 (1991) 227
Halfpenny, P.J., L. O'Neill, J.N. Sherwood, G.S. Simpson, A. Yokotani, A. Miyamoto, T. Sasaki and S. Nakai, X-ray topographic study of flux grown KTP crystals 113 (1991) 722
Hallett, J., see Feeney 113 (1991) 417
Hamza, S.M., Crystal growth of calcium fluoride in the presence of some metal ions 113 (1991) 637
Harrison, K., see Feeney 113 (1991) 417
Hartford, Jr., E.H., see Norton 113 (1991) 716
Hasegawa, F., see Kobayashi 113 (1991) 491
He Youping, Su Genbo, Pan Feng, Wu Bochang and Jang Rihong, Growth of N-(4-nitrophenyl)-(L)-prolinol (NPP) crystal in organic solvents and its characterization 113 (1991) 157
He Youping, Su Genbo, Pan Feng and Jang Rihong, Growth of beryllium sulfate tetrahydrate (BST) crystal in hydrate solution 113 (1991) 161
Hellman, E.S., see Norton 113 (1991) 716
Hesselink, L., see Wilde 113 (1991) 337
Hirata, A., see Saitou 113 (1991) 147
Holzinger, A., see Springholz 113 (1991) 593
Hou Li, see Qi 113 (1991) 726
Huppert, H.E., see Shirtcliffe 113 (1991) 566
Hurle, D.T.J., see Series 113 (1991) 305

Ishikawa, M., see Suzuki 113 (1991) 127
Ishizawa, Y., see Otani 113 (1991) 329

Janam, R. and O.N. Srivastava, Characterization of neutron irradiated $YBa_2Cu_3O_7$ single crystals 113 (1991) 403
Jang Rihong, see He 113 (1991) 157
Jang Rihong, see He 113 (1991) 161
Janssen, G., see Van Enckevort 113 (1991) 295
Jin, Y., see Kobayashi 113 (1991) 491
Jones, G.A.C., see Frost 113 (1991) 726
Jones, H., see Moir 113 (1991) 77

Kaldis, E., see Piechotka 113 (1991) 251
Kelly, K.W., K. Koai and S. Motakef, Model-based control of thermal stresses during LEC growth of GaAs. I. Validation of thermal model 113 (1991) 254
Kelly, K.W., S. Motakef and K. Koai, Model-based control of thermal stresses during LEC growth of GaAs. II. Crystal growth experiments 113 (1991) 265
Kelly, K.W., see Motakef 113 (1991) 279
Kijima, T., see Yoshida 113 (1991) 221
Kikuta, T., see Yoshida 113 (1991) 221
Kim, T., see Tran 113 (1991) 16
Klauda, M., see Markl 113 (1991) 395
Koai, K., see Kelly 113 (1991) 254
Koai, K., see Kelly 113 (1991) 265
Koai, K., see Motakef 113 (1991) 279
Kobayashi, R., Y. Jin, F. Hasegawa, A. Koukitu and H. Seki, Low temperature growth of GaAs and AlAs by direct reaction between $GaCl_3$, $AlCl_3$ and AsH_3 113 (1991) 491
Kokubun, Y., see Suzuki 113 (1991) 127
Koukitu, A., see Kobayashi 113 (1991) 491
Krenn, H., see Springholz 113 (1991) 593
Kulakov, M.P. and I.V. Balyakina, Solid state wurtzite–sphalerite transformation and phase boundaries in ZnSe–CdSe 113 (1991) 653
Kuriyama, K., N. Mineo and Y. Takahashi, Preparation and characterization of the filled tetrahedral semiconductor LiZnP film on GaP(111) 113 (1991) 333
Kusaka, I., see Tomino 113 (1991) 633
Kusunoki, T., see Nakajima 113 (1991) 485

Lacelle, C., see Roth 113 (1991) 379
Langlais, F., C. Prebende and J.P. Couderc, Physical and chemical kinetic processes in the CVD of silicon from SiH_2Cl_2/H_2 gaseous mixtures in a vertical cylindrical hot-water reactor 113 (1991) 606
Lazzarini, L., see Bernardi 113 (1991) 53
Le Guillou, Y., see L'Haridon 113 (1991) 39
Leccabue, F., see Bocelli 113 (1991) 663
Lee, H.C., see Tran 113 (1991) 16
L'Haridon, H., R. Callec, R. Coquillé, P.N. Favennec, J.P. Fillard, P. Gall, M. Ganeau and Y. Le Guillou, Inhomogeneity in a semi-insulating indium phosphide ingot 113 (1991) 39
Li Qingchun, see Liu 113 (1991) 289
Liu Qifu, see Liu 113 (1991) 289
Liu Qiyang, Li Qingchun and Liu Qifu, Epitaxial growth of silicon in a high purity Al–22 wt% Si alloy 113 (1991) 289
Lousa, A., see Ferrater 113 (1991) 181
Lu, K., M.L. Sui and J.T. Wang, A micromechanism for crystallization of amorphous alloys. II. Bulk crystallization process 113 (1991) 242
Lyman, P.F., S. Thevuthasan and L.E. Seiberling, Low temperature pseudomorphic growth of Ge on Si(100)-(2 × 1) 113 (1991) 45

Maier, M., see Springholz 113 (1991) 593
Markl, J., J.P. Ströbel, M. Klauda and G. Saemann-Ischenko, Preparation of $Ln_{2-x}Ce_xCu_1O_{4-\delta}$ single crystals (Ln = Nd, Sm) by a modified flux flow method 113 (1991) 395
McCluskey, R.J., see Chaudhry 113 (1991) 120
Menken, M.J.V., A.J.M. Winkelman and A.A. Menovsky, Crystal growth of Bi-based (85 K) high-T_c superconducting compounds with a mirror furnace 113 (1991) 9
Menovsky, A.A., see Menken 113 (1991) 9
Meyer, J.L., see Eidelman 113 (1991) 643
Mineo, N., see Kuriyama 113 (1991) 333
Miyake, H., see Sugiyama 113 (1991) 390
Miyamoto, A., see Halfpenny 113 (1991) 722
Miyazaki, N., H. Uchida, S. Hagihara, T. Munakata and T. Fukuda, Thermal stress analysis of bulk single crystal during Czochralski growth (comparison between anisotropic analysis and isotropic analysis) 113 (1991) 227
Moir, S.A. and H. Jones, The effect of temperature gradient and growth rate on spacing between primary silicon particles in rapidly solidified hypereutectic aluminium–silicon alloys 113 (1991) 77
Morenza, J.L., see Ferrater 113 (1991) 181
Mori, K., see Sugiyama 113 (1991) 390
Morkoç, H., see Biswas 113 (1991) 209
Motakef, S., see Kelly 113 (1991) 254
Motakef, S., see Kelly 113 (1991) 265
Motakef, S., K.W. Kelly and K. Koai, Comparison of calculated and measured dislocation density in LEC-grown GaAs crystals 113 (1991) 279
Müller, G., see Rupp 113 (1991) 131
Munakata, T., see Miyazaki 113 (1991) 227
Munson, S., see Pusey 113 (1991) 385

Nakai, S., see Halfpenny 113 (1991) 722
Nakajima, K., Calculation of stresses in $In_{0.12}Ga_{0.88}As$ ternary bulk crystals with

compositionally graded $In_{1-x}Ga_xAs$ layers on GaAs seeds 113 (1991) 477
Nakajima, K., T. Kusunoki and C. Takenaka, Growth of ternary $In_xGa_{1-x}As$ bulk crystals with a uniform composition through supply of GaAs 113 (1991) 485
Nancollas, G.H., see Ebrahimpour 113 (1991) 83
Nishikawa, Y., see Suzuki 113 (1991) 127
Nishioka, K., see Tomino 113 (1991) 633
Noad, J.P., see Roth 113 (1991) 379
Norton, M.G., E.S. Hellman, E.H. Hartford, Jr. and C.B. Carter, Early stages of growth of epitactic barium bismuth oxide films on single-crystal MgO 113 (1991) 716
Norton, P., see Springholz 113 (1991) 593
Norwood, R.G., see Bordui 113 (1991) 61
Nye, J.F., The rotting of temperate ice 113 (1991) 465

O'Neill, L., see Halfpenny 113 (1991) 722
Osuga, D.T., see Feeney 113 (1991) 417
Otani, S., T. Tanaka and Y. Ishizawa, Effect of PrB_6 addition to LaB_6 crystals grown by the floating zone method 113 (1991) 329
Ouazzani, J., see Alexander 113 (1991) 21
Ozawa, S., see Yoshida 113 (1991) 221

Pan Feng, see He 113 (1991) 157
Pan Feng, see He 113 (1991) 161
Pearton, S.J., see Abernathy 113 (1991) 412
Pelosi, C., see Bocelli 113 (1991) 663
Piechotka, M., M. Zha and E. Kaldis, A novel method for nucleation control of mercuric iodide from the vapour phase 113 (1991) 251
Pinard, P., see Chibani 113 (1991) 681
Posthill, J.B., see Xing 113 (1991) 113
Prebende, C., see Langlais 113 (1991) 606
Pu Xin, see Qi 113 (1991) 726
Pusey, M.L. and S. Munson, Micro-apparatus for rapid determinations of protein solubilities 113 (1991) 385
Prutskij, T.A., see Bocchi 113 (1991) 540

Qi Lichang, Xuan Zhenwu, Yang Peichun, Pu Xin and Hou Li, Presence of core particles in diamond crystals grown by electron assisted chemical vapor deposition (E) 113 (1991) 726

Reedyk, M., see Xue 113 (1991) 371
Ren, F., see Abernathy 113 (1991) 412
Ritchie, D.A., see Frost 113 (1991) 726
Roberts, D.H., see De Yoreo 113 (1991) 691
Rodriguez, J.G., see Bocchi 113 (1991) 540
Rosenberger, F., see Alexander 113 (1991) 21
Rostrup, E., see Christoffersen 113 (1991) 599
Roth, A.P., Z. Wasilewski, Q. Sun, C. Lacelle, T. Bryskiewicz, D. Coulas and J.P. Noad, Properties of InGaAs epitaxial layers lattice matched to InGaAs single crystal substrates 113 (1991) 379
Rouzaud, A., see Garandet 113 (1991) 587
Rupp, R. and G. Müller, Experimental study of the surface tension of molten GaAs and its temperature dependence under controlled As-vapor pressure 113 (1991) 131

Sabhapathy, P. and M.E. Salcudean, Numerical study of Czochralski growth of silicon in an axisymmetric magnetic field 113 (1991) 164
Saemann-Ischenko, G., see Markl 113 (1991) 395
Saitou, M. and A. Hirata, Numerical calculation of two-dimensional unsteady solidification problem 113 (1991) 147
Salcudean, M.E., see Sabhapathy 113 (1991) 164
Sang Wen-bin, K. Durose, A.W. Brinkman and J. Woods, In-situ mass spectrometric investigation of tricarbonyl (methylcyclopentadienyl) manganese (TCMn) pyrolysis mechanism during MOVPE 113 (1991) 1
Sasaki, T., see Halfpenny 113 (1991) 722
Savage, J.A., Preparation and properties of hard crystalline materials for optical applications – a review 113 (1991) 698
Scaffardi, M., see Bocchi 113 (1991) 540
Schaus, C.F., see Sun 113 (1991) 103
Schowalter, L.J., see Ayers 113 (1991) 430
Seiberling, L.E., see Lyman 113 (1991) 45
Seki, H., see Kobayashi 113 (1991) 491
Series, R.W. and D.T.J. Hurle, The use of magnetic fields in semiconductor crystal growth 113 (1991) 305
Shepherd, E.E.A., J.N. Sherwood, G.S. Simpson and C.S. Yoon, The growth, perfection and properties of organic non-linear optical materials. I. 4-Nitro-4′-methyl benzylidene aniline 113 (1991) 360
Sherwood, J.N., see Shepherd 113 (1991) 360
Sherwood, J.N., see Halfpenny 113 (1991) 722
Shirtcliffe, T.G.L., H.E. Huppert and M.G. Worster, Measurement of the solid fraction in the crystallization of a binary melt 113 (1991) 566
Shripathi, T., see Dhanaraj 113 (1991) 456
Simpson, G.S., see Shepherd 113 (1991) 360
Simpson, G.S., see Halfpenny 113 (1991) 722
Song, J., see Abernathy 113 (1991) 412
Springholz, G., A. Holzinger, H. Krenn, H. Clemens, G. Bauer, H. Böttner, P. Norton and M. Maier, Interdiffusion in $Pb_{1-x}Eu_xSe/PbSe$ multi-quantum-well structures 113 (1991) 593
Srivastava, O.N., see Janam 113 (1991) 403
Stringfellow, G.B., see Cao 113 (1991) 441
Ströbel, J.P., see Markl 113 (1991) 395
Su Genbo, see He 113 (1991) 157

Su Genbo, see He 113 (1991) 161
Sugiyama, K., K. Mori and H. Miyake, Epitaxial growth of $CuAlSe_2$ on $CuGaSe_2$ substrates 113 (1991) 390
Sui, M.L., see Lu 113 (1991) 242
Sun, Q, see Roth 113 (1991) 379
Sun, S.Z., E.A. Armour, K. Zheng and C.F. Schaus, Zinc and tellurium doping in GaAs and $Al_xGa_{1-x}As$ grown by MOCVD 113 (1991) 103
Suzuki, J., see Yoshida 113 (1991) 221
Suzuki, M., Y. Nishikawa, M. Ishikawa and Y. Kokubun, Effects of substrate misorientation on doping characteristics and band gap energy for InGaAlP crystals grown by metalorganic chemical vapor deposition 113 (1991) 127
Sveshtarov, P. and M. Gospodinov, The effect of the interface shape on automatic Czochralski weight diameter control system performance 113 (1991) 186

Takahashi, Y., see Kuriyama 113 (1991) 333
Takai, T., see Tomino 113 (1991) 633
Takenaka, C., see Nakajima 113 (1991) 485
Tanaka, T., see Otani 113 (1991) 329
Tareen, J.A.K., see Basavalingu 113 (1991) 659
Thevuthasan, S., see Lyman 113 (1991) 45
Tiller, W.A., see Yen 113 (1991) 549
Timmons, M.L., see Xing 113 (1991) 113
Tomino, H., I. Kusaka, K. Nishioka and T. Takai, Interfacial tension for small nuclei in binary nucleation 113 (1991) 633
Tran, D., H.C. Lee, C. Tu, T. Kim and L.C. Chiu, Novel surface preservation technique for large area growth of (100) InP substrate by LPE 113 (1991) 16
Tsai, C.T., On the finite element modeling of dislocation dynamics during semiconductor crystal growth 113 (1991) 499
Tu, C., see Tran 113 (1991) 16

Uchida, H., see Miyazaki 113 (1991) 227
Ueda, T., see Ueda 113 (1991) 69
Ueda, Y., M. Fukuoka, T. Ueda and M. Ashida, Photopolymerization of vapor-deposited 2,5-distyrylpyrazine films 113 (1991) 69
Van Enckevort, W.J.P., G. Janssen and L.J. Giling, Anisotropy in monocrystalline CVD diamond growth. I. A sphere growth experiment 113 (1991) 295
Vesenka, J.P., see Feeney 113 (1991) 417
Voigt, D.E. and S.L. Brantley, Inclusions in synthetic quartz 113 (1991) 527

Wang, J.T., see Lu 113 (1991) 242
Wasilewski, Z., see Roth 113 (1991) 379
Watts, B.E., see Bocelli 113 (1991) 663
Wilcox, W.R., see Banan 113 (1991) 557
Wilde, J.P., L. Hesselink and R.S. Feigelson, Diameter stabilization of Czochralski-grown $Sr_{0.61}Ba_{0.39}Nb_2O_6$ (SBN) crystals using real-time computer control 113 (1991) 337
Winkelman, A.J.M., see Menken 113 (1991) 9
Woods, J., see Sang 113 (1991) 1
Worster, M.G., see Shirtcliffe 113 (1991) 566
Wright, R.L., see Chaudhry 113 (1991) 120
Wu Bochang, see He 113 (1991) 157
Wu, T.B., see Chen 113 (1991) 520
Wu, Y.L., see Chen 113 (1991) 520

Xiao, Q., see Derby 113 (1991) 575
Xing, G.C., K.J. Bachmann, J.B. Posthill and M.L. Timmons, Organometallic chemical vapor deposition and characterization of $ZnGe_{1-x}Si_xP_2$–Ge alloys on GaP substrates 113 (1991) 113
Xuan Zhenwu, see Qi 113 (1991) 726
Xue, J.S., M. Reedyk, A. Dabkowski, H. Dabkowska, J.E. Greedan and C.H. Chen, Crystal growth and characterization of superconducting lead cuprates 113 (1991) 371

Yang Peichun, see Qi 113 (1991) 726
Yeh, Y., se Feeney 113 (1991) 417
Yen, C.T. and W.A. Tiller, Dynamic oxygen concentration in silicon melts during Czochralski crystal growth 113 (1991) 549
Yokotani, A., see Halfpenny 113 (1991) 722
Yoon, C.S., see Shepherd 113 (1991) 360
Yoshida, S., S. Ozawa, T. Kijima, J. Suzuki and T. Kikuta, InP single crystal growth with controlled supercooling during the early stage by a modified LEC method 113 (1991) 221

Zha, M., see Piechotka 113 (1991) 251
Zhang, Jingwu, see Ebrahimpour 113 (1991) 83
Zheng, K., see Sun 113 (1991) 103

Journal of Crystal Growth 113 (1991) 732–735
North-Holland

Subject index

Adsorption 289, 417, 508, 606, 637
Alloys 77, 242, 449
Aluminum
– arsenide 491
– copper 449
– gallium antimonide 441
– gallium arsenide 103, 412
– gallium arsenide antimonide 441
– organic 103, 441
– silicon alloys 77, 289
Antimony
– organic 441
Apparatus
– for thin film growth
– – by liquid phase epitaxy
– – – using two-arm cover
– – – – of mercury cadmium telluride 520
– – by molecular beam epitaxy
– – – safety system for 209
– – by vapor phase epitaxy
– – – through chemical vapor deposition
– – – – of silicon 606
– – – through metalorganic chemical vapor deposition
– – – – of silicon carbide 120
– for miscellaneous purposes
– – determination of protein solubilities 385
– – kinetic studies of simultaneous processes 83
– – measurement of solid fraction in binary melt 566
– – nucleation control 251
Arginine phosphate 456

Barium
– bismuth oxide system 716
Beryllium
– sulfate tetrahydrate 161
Bismuth
– germanate 186
– silicate 186
– strontium calcium cuprate 9
Boundary layer control 587

Cadmium
– manganese telluride 663
– mercury telluride 53, 92, 520
– selenide 653
– selenide–zinc selenide 653
– telluride 147
Calcium
– fluoride 637
– phosphates 83, 643
– sulphate 508
Cellular growth 77
Characterization methods
– by absorption spectroscopy 333
– by cathodoluminescence 295
– by differential thermal analysis 653, 659
– by electrical methods 61, 103, 113, 127, 140, 371, 403, 566
– by electron diffraction 120
– by electron microscopy 9, 53, 61, 69, 113, 120, 140, 242, 289, 295, 333, 395, 403, 441, 449, 485, 491, 520, 527, 540, 659, 681, 716
– by electron probe microanalysis 9, 520
– by Fourier transform infrared 520, 643
– by infrared spectroscopy 69
– by laser tomography 39
– by light scattering 417
– by magnetic properties 9, 371, 395
– by mass spectrometry 1
– by neutron diffraction 161
– by optical microscopy 61, 77, 103, 157, 221, 295, 329, 390, 417, 456, 485, 527, 653, 669, 691
– by optical properties 698
– by photoluminescence 39, 333, 379, 390, 441
– by reflection high energy electron diffraction 716
– by Rutherford back scattering 716
– by secondary ion mass spectrometry 593
– by second harmonic generation 61, 161
– by transmission ion channeling spectroscopy 45
– by transmission spectroscopy 157
– by X-ray methods 9, 53, 61, 113, 120, 161, 181, 242, 333, 360, 371, 379, 390, 395, 403, 430, 441, 456, 520, 527, 540, 593, 643, 653, 663, 669, 681, 722
Chirality 508
Computer simulation 147, 508, 575
Convection 21, 92, 164, 549, 575, 587
Copper
– aluminum diselenide 390
– gallium ditelluride 663
– indium ditelluride 663
Crystals
– hard 698

Dendritic growth 77, 449, 566
Devices 16, 61, 113, 681
Diamond 295, 698

Diamond-like 698
Diffusional control 77, 549, 593, 606, 691
Dislocations 53, 221, 227, 254, 265, 279, 379, 430, 456, 499, 527, 681, 722
Dissolution 549, 637
Distribution coefficient 549, 637
Dopants 9, 21, 103, 127, 395, 412, 520, 587

Electrolytes 599
Etching
– chemical 39, 103, 113, 221, 329, 485, 491, 681
Eutectic growth 77, 242, 289

Finite element method 227, 499

Gadolinium
– gallium garnet 575
Gallium
– aluminum arsenide 540
– antimonide 557
– arsenide 103, 131, 227, 254, 265, 279, 412, 491
– organic 103, 441
Garnets 575
Germanium 21, 45, 186
Grain boundary 465
Gypsum 508

Hard crystals 698
Heat flow control 186, 254, 265, 279, 557, 575
Heterojunction 113, 477, 520
Hydrodynamics 92, 164, 575

Ice 417, 465
Impurity 289, 465, 508, 527, 549, 637, 691
Inclusions 566
Indium
– gallium aluminum phosphide 127
– gallium arsenide 379, 477, 485
– organic 441
– phosphide 16, 39, 221
Interface 53, 147, 186, 289, 337, 417, 575, 633, 637
Iron
– (III) phosphate 140

Kinetics
– of growth 83, 103, 120, 127, 140, 295, 337, 417, 491, 606, 637, 643
– of internal melting 465
– of nucleation 83, 140, 599
– of simultaneous processes 83

Lanthanide cuprates 395
Lanthanum
– praseodymium hexaboride 329
Lasers 540, 593, 691
Lattice mismatch 379, 430, 441, 477
Lead
– cuprates 371
– europium selenide 593
Lithium
– niobate 61
– zinc phosphide 333

Manganese
– organic 1
Mathematical model 21, 164, 254, 265, 430, 477
Melt growth technique
– by Bridgman–Stockbarger method
– – of cadmium selenide–zinc selenide 653
– – of cadmium telluride 147
– – of gallium antimonide 557
– – of germanium 21
– – of mercury cadmium telluride 92
– – of organic crystals 360
– – computer simulation of 147
– – numerical simulation of 21, 587
– by Czochralski method
– – of bismuth strontium calcium cuprate 9
– – of gadolinium gallium garnet 575
– – of gallium arsenide 254, 265, 279
– – of indium gallium arsenide 485
– – of indium phosphide 39, 221
– – of lithium niobate 61
– – of silicon 164, 549
– – of strontium barium niobate 337
– – model of 186, 227
– – numerical study of 164
– – using real-time computer control 337
.– by floating zone method
– – of gallium arsenide 131
– – of lanthanum praseodymium hexaboride 329
– by uniaxial solidification
– – of lithium calcium aluminum fluoride 691
– by various methods
– – of aluminum–silicon alloys 77
– under magnetic field
– – of semiconductors 305
Mercury
– cadmium telluride 53, 92, 520
– (II) iodide 251
– manganese telluride 1
Microgravity 21, 131
Morphological stability 16, 465
Morphology of growth 69, 103, 157, 161, 242, 289, 295, 360, 395, 417, 441, 449, 456, 491, 508, 566, 691, 716

Nickel 242
– phosphide 242
Nonlinear optics 157, 161, 360, 456
Nucleation 140, 251, 289, 371, 599, 633, 637, 716
Numbers
– Biot 557
– Grashof 21, 120, 575, 587
– Lewis 92

- Marangoni 131
- Peclet 21, 164, 587, 606
- Prandtl 92, 164
- Rayleigh 92, 164
- Reynolds 164, 575, 606
- Schmidt 587

Organic crystals 69, 157, 360, 385, 456
Oxides 698
Oxynitrides 698
Perfection of crystals 16, 39, 45, 53, 265, 279, 295, 329, 333, 337, 360, 379, 403, 430, 456, 527, 669, 691, 722
Phase diagrams 371, 385, 441, 485, 653, 659
Phenomenological theory 186, 549
Polymerization 69
Potassium
- titanyl phosphate 722
Precursor 1
Proteins 385
Purification of materials 360

Quartz 527, 669
Quantum wells/size effects 593

Safety instrumentation 209
Semiconductors 305
Silicon 164, 186, 289, 606, 681
- carbide 120
- dioxide 527, 669
- organic 120
Silver
- gallium ditelluride 663
Sodium
- nitrate 566
Solid growth technique
- by photopolymerization
- - of organic crystals 69
- by polymorphic transformation
- - of cadmium selenide–zinc selenide 653
- by recrystallization
- - of silicon 681
- by strain anneal
- - of nickel phosphide 242
Solubility 456
Solution growth technique
- by dual constant composition
- - of calcium phosphates 83
- by flux method
- - of lead cuprates 371
- - of potassium titanyl phosphate 722
- - of yttrium barium cuprate 403
- by gel method
- - of gypsum 508
- by hydrothermal growth
- - of quartz 527
- - of vanadium oxides 659
- by low temperature method
- - of arginine phosphate 456
- - of calcium fluoride 637
- - of calcium phosphates 643
- - of ice 417
- - of iron (III) phosphate 140
- - of organic crystals 157, 360
- - of sodium nitrate 566
- by modified flux flow method
- - of lanthanide cuprates 395
- by solvent evaporation
- - of beryllium sulphate tetrahydrate 161
Stefan problem or moving boundary problem 147, 575
Step 295
Strain 227, 265, 379, 430, 477, 499
Strontium
barium niobate 337
Superconductivity 9, 371, 395, 403
- bulk 9, 371, 395, 403
- characterization 9, 371, 395, 403
- high T_c 9, 371, 395, 403
- phase relationships 371, 395
- stoichiometry 9, 371
Supercooling, supersaturation 417
Surface energy, determination of 131, 140, 599
Surface processes 599, 606
Surface structure 16, 45, 295

Tellurides
- ternary 663
Tellurium
- organic 1, 103
Thermodynamics 491, 599, 633
Thin film growth
- by liquid phase epitaxy
- - of gallium aluminum arsenide 540
- - of indium phosphide 16
- - of mercury cadmium telluride 53, 520
- by metalorganic molecular beam epitaxy
- - of aluminum gallium arsenide 412
- - of gallium arsenide 412
- by molecular beam epitaxy
- - of barium–bismuth–oxygen system 716
- - of germanium 45
- - of lead europium selenide 593
- by vapor phase epitaxy
- - through chemical vapor deposition
- - - of aluminum arsenide 491
- - - of copper aluminum diselenide 390
- - - of diamond 295
- - - of gallium arsenide 491
- - - of silicon 606
- - through evaporation and condensation
- - - of lithium zinc phosphide 333
- - - of yttrium 181
- - through metalorganic chemical vapor deposition
- - - of aluminum gallium antimonide 441
- - - of aluminum gallium arsenide 103

– – – of aluminum gallium arsenide antimonide 441
– – – of gallium arsenide 103
– – – of indium gallium aluminum phosphide 127
– – – of indium gallium arsenide 379
– – – of mercury manganese telluride 1
– – – of silicon carbide 120
– – – of zinc silicon germanium phosphide 113
– theory of 430
Three–five (III–V) compounds 209
Twinning 221, 669

Uniformity of growth 61

Vanadium
– oxides 659
Vapor growth technique
– by chemical transport
– – of ternary ditellurides 663
– – of ternary tellurides 663
– by evaporation and condensation
– – of mercury (II) iodide 251

Yttrium 181
– barium cuprate 403

Zinc
– organic 103
– selenide 653
– silicon germanium phosphide 113